



APPROVAL TO OPERATE

S-2328

Pursuant to paragraph 8(1) of the *Water Quality Regulation - Clean Environment Act*, this Approval to Operate is hereby issued to:

Greater Moncton Sewerage Commission for the operation of the Wastewater Works

Description of Source:

This Approval covers the discharge of effluent from the locations contained in the Federal Effluent Regulatory Reporting Information System for the following system.

Chemically Assisted Primary Treatment (Mechanical)
WWC: Class II
WWT: Class III

Mailing Address:

355 Hillsborough Road
Riverview, NB
E1B 1S5

Conditions of Approval:

See attached Schedule "A" of this Approval.

Supersedes Approval:

S-1464

Valid From:

April 01, 2013

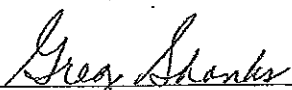
Valid To:

November 30, 2014

Recommended by:


for Community Planning & Environmental Protection Division

Issued by:


for Minister of Environment and Local Government

MAR 27 2013

Date

SCHEDULE "A"

A. DEFINITIONS

1. **"Accredited"** means accreditation to ISO/IEC 17025 by the Standards Council of Canada (SCC), the Canadian Association for Laboratory Accreditation Inc. (CALA), or accreditation to ISO/IEC 17025:2005 from another body that is recognized to grant such accreditation per ISO/IEC 17011 criteria.
2. **"After-hours"** means the hours when the *Department's* offices are closed. These include statutory holidays, weekends, and the hours before 8:15 a.m. and after 4:30 p.m. from Monday to Friday, or any other time in which direct contact cannot be made with the *Department*.
3. **"Approval Holder"** means the name listed on the Certificate page of this Approval.
4. **"Average Daily Volume"** means a calculation of the sum of the daily volumes of influent or effluent and dividing that sum by the number of days in that calendar year.
5. **"CBOD" or "Carbonaceous Biochemical Oxygen Demanding Matter"** means the carbonaceous matter that consumes, by biochemical oxidation, oxygen dissolved in water.
6. **"Certified"** means a valid certificate of qualification that states the class of the *Operator* issued by the Atlantic Canada Water and Wastewater Voluntary Certification Program.
7. **"Department"** means the New Brunswick Department of Environment and Local Government.
8. **"Director"** means the Director of the Impact Management Branch of the *Department*, and includes any person designated to act on the Director's behalf.
9. **"Environmental Emergency"** means a situation where there has been or will be a release, discharge, or deposit of a contaminant or contaminants to the atmosphere, soil, surface water, and/or groundwater environments of such a magnitude or duration that it could cause significant harm to the environment or put the health of the public at risk. This does not include wastewater overflows that are the result of excessive rainfall or snowmelt.
10. **"Final Discharge Point"** means the point, other than an *Overflow Point*, of a wastewater works beyond which its owner or operator no longer exercises control over the quality of the wastewater before it is deposited as effluent to the environment.

11. "Lagoon" means a wastewater treatment system where the average period during which wastewater is retained for treatment within the wastewater system is five days or more.
12. "Normal Business Hours" means the hours when the *Department's* offices are open. These include the period between 8:15 a.m. and 4:30 p.m. from Monday to Friday excluding statutory holidays.
13. "Operator" means a person who directs, adjusts, inspects, tests or evaluates an operation or process that controls the effectiveness or efficiency of the wastewater works.
14. "Overflow Point" means a point of a wastewater work via which excess wastewater may be deposited in water or a place and beyond which its owner or operator no longer exercises control over the quality of wastewater before it is deposited as effluent.
15. "Point of Entry" means any point where effluent is deposited in water frequented by fish via the *Final Discharge Point* or an *Overflow Point*.
16. "Quarter" in respect of a year, means any of the four periods of three months that begin on the first day of January, April, July and October.
17. "Suspended Solids" means any solid matter contained in effluent that is retained on a filter of 2.0 micrometre (μm) or smaller pore size.
18. "Total Residual Chlorine" means the sum of free chlorine and combined chlorine, including inorganic chloramines.

B. TERMS AND CONDITIONS - EMERGENCY REPORTING

Pursuant to Sections 8(2) of the *Water Quality Regulation*, this Approval is subject to the following conditions:

19. Immediately following the discovery of an *Environmental Emergency*, a designate representing the *Approval Holder* shall notify the *Department* in the following manner:

During Normal Business Hours, telephone the *Department's* Central Office until personal contact is made (i.e. no voice mail messages will be accepted) and provide all information known about the *Environmental Emergency*.

The telephone number for the Central Office is (506) 453-7945.

After-hours, telephone the Canadian Coast Guard until personal contact is made and provide all information known about the *Environmental Emergency*.

The telephone number for the Canadian Coast Guard is 1-800-565-1633.

20. Within 24-hours of the time of initial notification, a copy of a Preliminary Emergency Report shall be e-mailed or faxed to the Wastewater Approvals Coordinator or Engineer responsible for the regulation of the *Approval Holder's* wastewater works. The Preliminary Emergency Report shall clearly communicate all information available at the time about the *Environmental Emergency*.

Within five (5) days of the time of initial notification, a copy of a Detailed Emergency Report shall be e-mailed or faxed to the Wastewater Approvals Coordinator or Engineer responsible for the regulation of the *Approval Holder's* wastewater works. The Detailed Emergency Report shall include, as a minimum, the following: i) a description of the problem that occurred; ii) a description of the impact that occurred; iii) a description of what was done to minimize the impact; and iv) a description of what was done to prevent recurrence of the problem.

C. TERMS AND CONDITIONS - EFFLUENT PERFORMANCE STANDARDS

21. The *Approval Holder* shall ensure that the average concentration of contaminants in the effluent deposited via the *Final Discharge Point* of the wastewater works does not exceed the following limiting criteria. The average must be calculated by using the applicable calculating period listed in Condition 28:
 - i. *CBOD₅*: 25 mg of *CBOD₅/L* (average); and
 - ii. *Suspended Solids*: 25 mg/L (average).
22. For a *Lagoon*, the *Approval Holder*, in the determination of the average referred to in Condition 21 is not to take into account the result of any determination of the concentration of *Suspended Solids* in a sample of effluent referred to in Condition 28 that was taken during the month of July, August, September or October, if that result is greater than 25 mg/L.
23. From **January 1, 2013 to June 30, 2014**, the *Approval Holder* shall ensure that the maximum concentration of contaminants in the effluent deposited via the *Final Discharge Point* of the wastewater works does not exceed a maximum of 1.25 mg/L of un-ionized ammonia, expressed as nitrogen (N) at 15°C ± 1°C.
24. The *Approval Holder*, on or before **June 30, 2014**, shall apply to the *Director*, in the form and format specified by the *Department*, if the effluent deposited via the *Final Discharge Point* of the wastewater works contains a concentration of *Suspended Solids* and/or *CBOD* that exceeds 25 mg/L, for the applicable calculating period listed in Condition 28.

25. The *Approval Holder* shall immediately apply to the *Director*, in the form and format specified by the *Department*, if any samples of the effluent deposited via the *Final Discharge Point* contain a calculated concentration of un-ionized ammonia that is greater than or equal to 1.25 mg/L, expressed as nitrogen (N) at $15^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

D. TERMS AND CONDITIONS - MONITORING AND SAMPLING

Pursuant to Section 17 of the *Water Quality Regulation*, this Approval is subject to the following conditions:

26. The *Approval Holder* shall, for each calendar year, calculate and record the *Average Daily Volume* of effluent deposited via the system's *Final Discharge Point*. The volume of effluent during each day must be determined by using monitoring equipment that provides:
 - i. A continuous measure of the volume of influent or effluent or a measure of the rate of flow of the influent or effluent upon which that daily volume of effluent may be estimated; or
 - ii. A continuous measure of the volume of influent or effluent if the *Average Daily Volume* measured during the previous calendar year is greater than $2,500 \text{ m}^3$.
27. The *Approval Holder* shall collect monitoring samples for the following parameters in accordance with the requirements of Condition 28.
 - i. The concentration of *CBOD*;
 - ii. The concentration of *Suspended Solids*; and
 - iii. Until June 30, 2014, the concentration of un-ionized ammonia.

28. The *Approval Holder* shall collect monitoring samples at the *Final Discharge Point* of the type and at the frequency indicated below based on the *Average Daily Volume* of effluent calculated in Condition 26:

<i>Average Daily Volume (m³)</i>	<i>Treatment Type</i>	<i>Type of Sample to be Taken</i>	<i>Monitoring Frequency</i>	<i>Calculating Period¹</i>	<i>Reporting Frequency</i>
less than 2,500	<i>Lagoon</i>	Grab or composite	Quarterly, but at least 60 days after any other sample	Annual	Annual
less than 2,500	Mechanical	Grab or composite	Monthly, but at least 10 days after any other sample	Quarterly	Quarterly
greater than 2,500 but less than or equal to 17,500	All	Composite	Every two weeks, but at least seven days after any other sample	Quarterly	Quarterly
greater than 17,500 but less than or equal to 50,000	All	Composite	Weekly, but at least five days after any other sample	Monthly	Quarterly
Greater than 50,000	All	Composite	Three days per week, but at least one day after any other sample	Monthly	Quarterly

1. The average must be determined for *CBOD* and *Suspended Solids*. The maximum must be determined for Un-ionized Ammonia

29. The *Approval Holder* must calibrate the flow monitoring equipment at least once in every calendar year and at least five months after a previous calibration.
30. The *Approval Holder* shall ensure that the monitoring equipment is capable to determine the volume or rate of flow with a margin of error of $\pm 15\%$.
31. The *Approval Holder* shall ensure that all samples are collected using the methods described in the latest edition of the ISO 5667-10, Water quality - Sampling - Part 10: Guidance on sampling of waste waters.
32. The *Approval Holder* shall ensure that all parameters that are required to be analysed by this Approval, are analysed by *Accredited* laboratories whose accreditation includes the analytical method used to make the determination.
33. The *Approval Holder* shall ensure that all equipment used for monitoring parameters required by this Approval is calibrated in accordance with manufacturer's recommendations.

34. Within six months of completing the Environmental Risk Assessment, the *Approval Holder* shall submit to the *Director* for approval, an Effluent Monitoring Plan based on the wastewater works' Environmental Risk Assessment. This Plan must include the parameters that are Effluent Discharge Objectives and a monitoring frequency for each.
35. The *Approval Holder* shall follow the monitoring requirements outlined in the approved Effluent Monitoring Plan.

E. TERMS AND CONDITIONS – OVERFLOW MANAGEMENT

36. By January 1, 2016, the *Approval Holder* shall submit to the *Director* for Approval a long term plan to reduce combined sewer overflows and reduce overflows from infiltration. The plan must follow, as a minimum, the *Department's* CSO/SSO Long-Term Control Plan Guidelines.
37. By January 1, 2016, the *Approval Holder* shall ensure that all new lift stations are designed to prevent the release of floatable materials and that existing lift stations are retrofitted for the removal of floatable materials.

F. TERMS AND CONDITIONS - OPERATOR CERTIFICATION

38. Pursuant to Section 19 of the *Water Quality Regulation*, the Minister gives notice that the *Approval Holder* shall employ and have available the following *Certified Operators* based on the Class of the wastewater works listed on the Certificate page of this Approval:

Treatment Class	Wastewater Treatment (WWT) <i>Certified Operator</i>	Collection Class	Wastewater Collection (WWC) <i>Certified Operator</i>
I	Minimum one Class I	I	None
II	Minimum one Class II and one Class I	II	One Class I by December 31, 2016
III	Minimum one Class III and one Class II	III	One Class I by December 31, 2016
IV	Minimum one Class IV and one Class III	IV	One Class I by December 31, 2016

G. TERMS AND CONDITIONS – RECORD KEEPING

Pursuant to Section 17 of the *Water Quality Regulation*, this Approval is subject to the following conditions:

39. The *Approval Holder* shall record and retain for a period of five years the following information and make it available to the *Department* upon request:
 - a. The date of each day when wastewater effluent was not discharged via the *Final Discharge Point* (if applicable);
 - b. For those days when effluent was deposited via the *Final Discharge Point*:
 - i. the daily volume deposited, in m^3 , if that volume is yielded by a continuous measure, or
 - ii. the estimated daily volume deposited, in m^3 , in any other case, and the results of the calculation and measurement used in the estimation, as outlined in Condition 26(i);
 - c. For all discharges from each *Overflow Point*, including those that were directly caused by excessive rain or snow melt:
 - i. the date of each day on which effluent was deposited via the *Overflow Point*,
 - ii. for each of those days, the duration or estimated duration, expressed in hours, of the deposit, along with an indication of whether it is the duration or an estimated duration,
 - iii. the daily volume deposited in m^3 if that volume is yielded by a continuous measure, or an estimate of the daily volume, in m^3 in any other case;
 - d. For all monitoring equipment used to determine the volume or rate of flow:
 - i. A description, including the type,
 - ii. The manufacturer's specifications, the year of manufacture and the model number,
 - iii. the date on which the equipment was calibrated and its degree of accuracy after each calibration,
 - iv. The date the equipment was installed and if applicable, the date on which it ceased to be used for monitoring and on which it was replaced;
 - e. For each monitoring sample determination required by Condition 28, as well as any additional sample determinations made by an *Accredited* laboratory:
 - i. the results of such determinations for each of the parameters listed in Condition 27,
 - ii. a statement as to whether the sample is a grab sample or a composite sample and the date on which the sample was taken;
 - f. All monitoring sample results for each parameter taken as part of the Effluent Monitoring Plan;
 - g. All monitoring sample results required by Schedule B, if applicable;
 - h. A list identifying the *Operator(s)* and indicating the training and certification level of each *Operator(s)*.

H. TERMS AND CONDITIONS – REPORTING

Pursuant to Section 17 of the *Water Quality Regulation*, this Approval is subject to the following conditions:

40. Before May 15th, 2013, the *Approval Holder* shall submit electronically to the *Director*, in the form and format specified by the *Department*, the following information:
 - a. The owner's and the operator's name, civic and postal addresses, telephone number and, if any, email address and fax number;
 - b. The name, title, civic and postal addresses, telephone number and, if any, email address and fax number, of a contact person;
 - c. If any, the wastewater works' name and civic address;
 - d. A statement indicating whether it is an intermittent or continuous wastewater works;
 - e. For a continuous wastewater works, a statement indicating whether the average period during which wastewater is retained for treatment within the wastewater works (hydraulic retention time) is five days or more;
 - f. A statement indicating whether the system is owned or operated, or both, by one or several of the following:
 - i. Her Majesty in right of Canada or another federal body,
 - ii. Her Majesty in right of a province or another provincial body,
 - iii. a municipality or another local authority,
 - iv. an entity other than one referred to in clauses (i) to (iii); and
 - g. The type of wastewater treatment, if any, including whether chlorine, or one of its compounds, is used, and a description of the type;
 - h. The latitude and longitude of the *Final Discharge Point* and the *Point of Entry*, if different;
 - i. A description of the water frequented by fish into which effluent is deposited, including:
 - i. a description of its use, if any, and
 - ii. its name, if any, and the name, if any, of the body of water that includes that water, and
 - iii. a statement as to whether the effluent is deposited in water frequented by fish via the *Final Discharge Point* or from a place where it was deposited via the *Final Discharge Point*;
 - j. The latitude and longitude for each *Overflow Point* for each of the combined sewers and sanitary sewers of the wastewater works;
 - k. For each *Point of Entry* in relation to an *Overflow Point*, a description of the water frequented by fish into which effluent is deposited, including:
 - i. a description of its use, if any, and
 - ii. its name, if any, and the name, if any, of the body of water that includes that water;
 - l. The *Average Daily Volume*, expressed in m³, of effluent deposited via the wastewater works' *Final Discharge Point* for the previous calendar year;

- m. If the information provided in accordance with this Condition changes, the owner or operator must send a notice to the *Director* providing the updated information within 45 days following the change.
41. The *Approval Holder* shall submit electronically to the *Director*, in the form and format specified by the *Department*, a report for the previous reporting period:
- i. within 45 days of the end of each year, with the period starting on the first day of January each year, for a *Lagoon* with an *Average Daily Volume* of effluent less than 2,500 m³/d;
 - ii. within 45 days of the end of each *quarter*, with the first *quarter* starting on the first day of January each year, for all other wastewater works.

The report must summarize the following:

- a. The number of days during which effluent was deposited;
 - b. The volume of effluent that was deposited, expressed in m³;
 - c. The average *CBOD* due to the quantity of *CBOD* matter in the effluent;
 - d. The average concentration of *Suspended Solids* in the effluent;
 - e. The maximum concentration of un-ionized ammonia in the effluent, if the period ends on or before June 30, 2014; and
 - f. All test results completed as part of the approved Effluent Monitoring Plan required in Condition 35.
42. The *Approval Holder* shall submit to the *Director* within 45 days of the end of each year:
- a. A summary of the date, location, duration including whether it is an estimated or measured duration, and estimated or calculated volume of all discharges from *Overflow Points*, including those that were directly caused by excessive rain or snow melt;
 - b. A summary report of any other environmental emergencies that were reported through the Emergency Reporting procedure described in this Approval; and
 - c. All monitoring sample results required by Schedule B, if applicable.